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84-1195

No. 84-

In the Supreme Court of the United States

October Term, 1984

NESTIER CORPORATION,
Petitioner,

vs.

MENASHA CORPORATION
(Lewisystems Division),
Respondent.

SUPPLEMENTAL APPENDIX TO PETITION FOR WRIT OF CERTIORARI To the United States Court of Appeals For the Federal Circuit

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EDITOR'S NOTE

PAGES 6 WERE POOR HARD COPY AT THE TIME OF FILMLNG. IF AND WHEN A BETTER COPY CAN BE OBTAINED, A NEW FICHE WILL BE ISSUED.

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U. S DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

January 12, 1983
(Date)

THIS IS TO CERTIFY that the annexed is a true copy from the records of this office of th printed specification and drawings of U.S. Patent 3,463,345.

By authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

G. V. Dossey
Certifying Officer.

Aug. 26, 1969 K. R. BOCKENSTETTE 3,463,345

LIDDED TOTE BOX

Filed Aug. 28, 1968 3 Sheets-Sheet 1

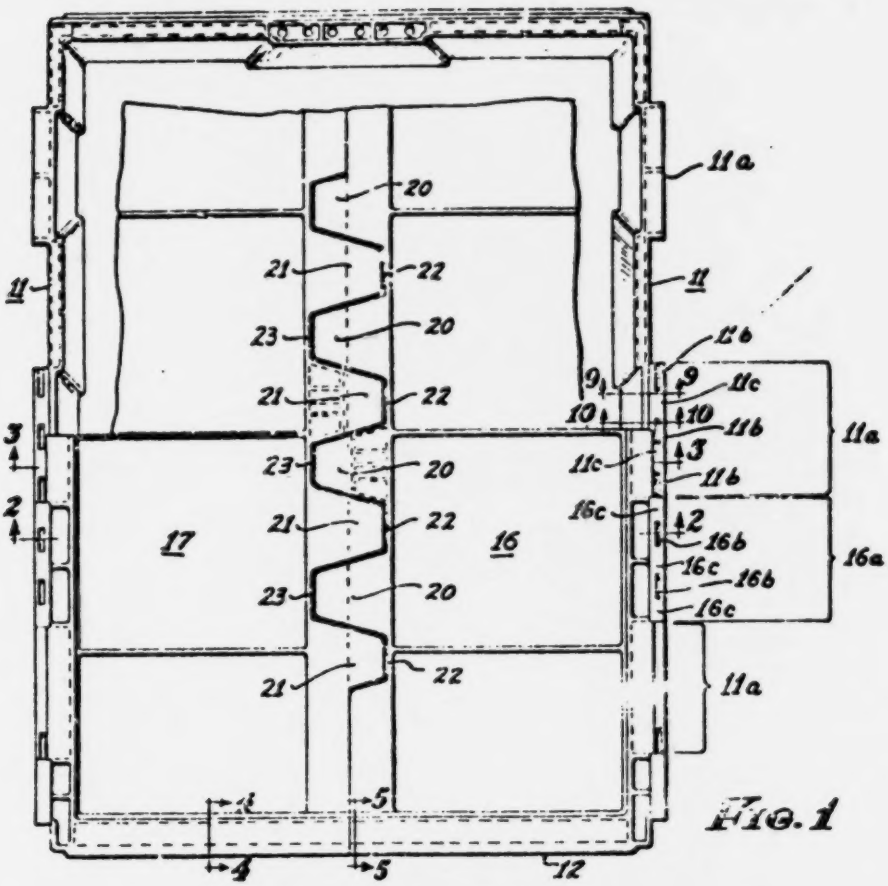


FIG. 1

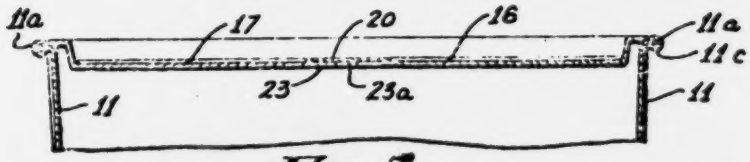


FIG. 3

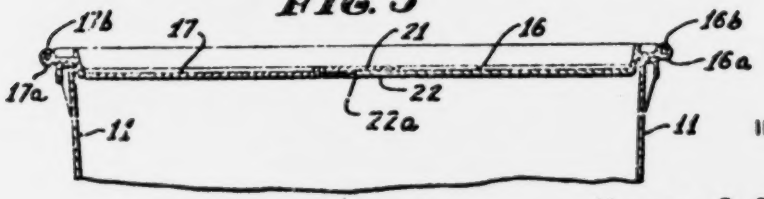


FIG. 2

INVENTORS

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ATTORNEYS

Aug. 26, 1969 K. R. BOCKENSTETTE 3,463,345

LIDDED TOTE BOX

Filed Aug. 28, 1968 3 Sheets-Sheet 2

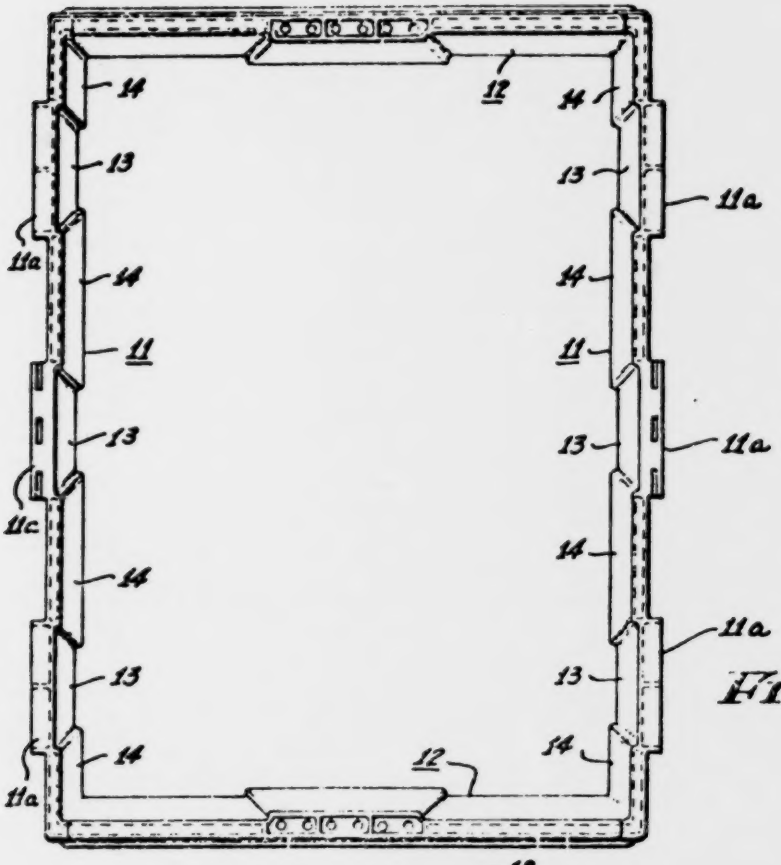


FIG. 6

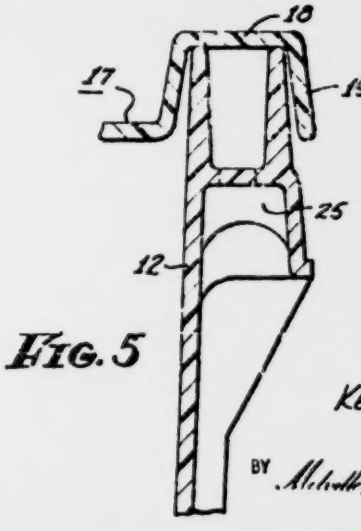


FIG. 5

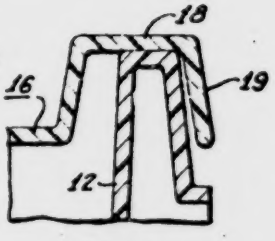


FIG. 4

INVENTORS

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Aug. 26, 1969 K. R. BOCKENSTETTE 3,463,345

LIDDED TOTE BOX

Filed Aug. 28, 1968 3 Sheets-Sheet 3

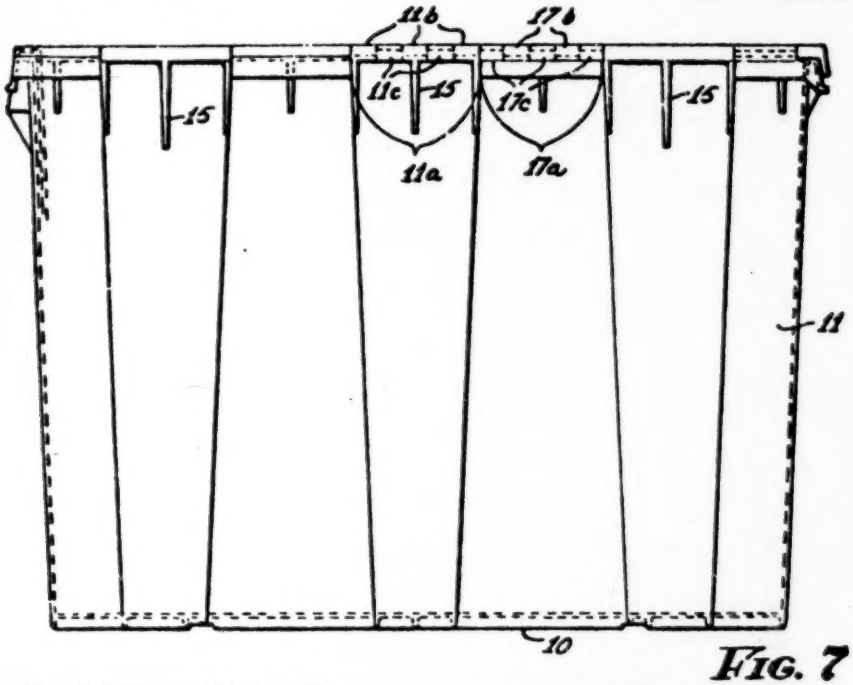


FIG. 7

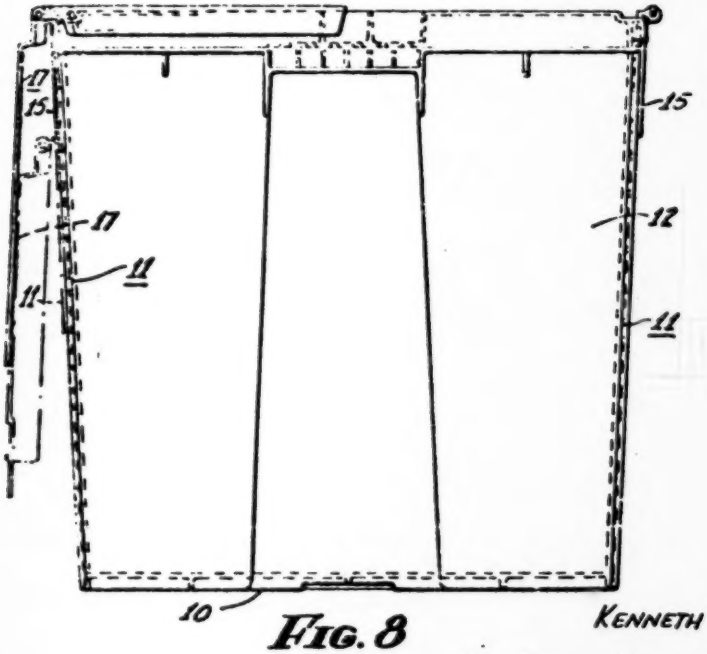


FIG. 8



FIG. 9

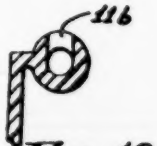


FIG. 10

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United States Patent Office 3,463,345
Patented Aug. 26, 1969

1

3,463,345

LIDDED TOTE BOX

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Filed Aug. 28, 1968, Ser. No. 755,936
Int. Cl. B65d 51/18
U.S. Cl. 220—29 4 Claims

ABSTRACT OF THE DISCLOSURE

A tote box of plastic or other suitable material, having hinged to opposed sides complementary interdigitating lid members, and capable of being nested with like boxes when said lid members are swung open, and being stackable with like boxes when said lid members are closed.

BACKGROUND OF THE INVENTION

The invention is in the field of tote boxes. Such boxes are used for many purposes, including the delivery of grocery products or drug products, to grocery stores, supermarkets, discount stores and the like. It is necessary that such boxes be capable of being stacked one upon the other; and for return to their source, it is desirable that they be capable of being nested one within the other to conserve space.

There have been numerous designs of such boxes, with and without lids, which were arranged to be stacked or nested, usually involving a 90° or 180° rotation of one box with respect to another, for stacking as against nesting. There have also been various designs of boxes having lids, but in most cases the lids have been separate elements and the lids were stacked separately for return to the source. According to the present invention the lids are in the form of two substantially half lids, which have interdigitating raised and depressed areas which provide a flat upper surface when closed, to permit stacking of one box upon another. When the lids are opened up, they hang down the side of the box so as to permit one box to be nested within another. Thus the problem of loss of lids is overcome while still retaining the ability to stack and nest the boxes.

SUMMARY

The tote box of the present invention is rectangular in cross section, and has a bottom member and upwardly, outwardly sloping side and end walls. The tapered construction permits nesting. Stop members are provided to limit the depth to which one box may nest within another. At the top of opposed walls of the box, hinge elements are provided and a pair of lid members having hinge elements along one edge are hingedly secured to the tops of opposed walls. When the lid members are opened they hang down on the outside of the respective walls of the box, so that when one box is nested in another, the downwardly depending hinged lid elements simply overlap each other. The lid elements are slightly more than one half the width of the box so that when they are closed, they overlap each other. The free edges of the lid members are provided with complementary raised and depressed areas which intermesh with each other to provide a flat upper surface when the lid elements are closed. The lateral edges of the lid elements are provided with means to engage the tops of the adjacent opposed walls; and when the lid elements are closed, a flat surface is provided which is inset or depressed with respect to the top edges of the side and end walls of the box. The configuration of the depressed lid area is such that the bottom of a like box snugly fits therein so as to be retained against lateral movement.

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BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a top plan view of a box according to the present invention with the cover elements closed.

FIGURE 2 is a fragmentary cross sectional view of the same taken on the line 2—2 of FIGURE 1.

FIGURE 3 is a fragmentary cross sectional view taken on the line 3—3 of FIGURE 1.

FIGURE 4 is a fragmentary cross sectional view on an enlarged scale taken on the line 4—4 of FIGURE 1.

FIGURE 5 is a fragmentary cross sectional view also on an enlarged scale taken on the line 5—5 of FIGURE 1.

FIGURE 6 is a view similar to FIGURE 1 but with the lid elements omitted.

FIGURE 7 is a side elevational view of a box according to the present invention.

FIGURE 8 is an end elevational view of the same showing in broken lines a fragment of another box in nesting relationship.

FIGURE 9 is an enlarged fragmentary cross sectional view taken on the line 9—9 of FIGURE 1.

FIGURE 10 is an enlarged fragmentary cross sectional view taken on the line 10—10 of FIGURE 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The tote box of the present invention has a bottom wall 10, opposed side walls 11, and opposed end walls 12. As best seen in FIGURES 7 and 8, these side and end walls slope upwardly and outwardly from the bottom wall 10. From a consideration of FIGURE 6, it will be noted that the side walls 11 are provided with wedge shaped, outwardly depressed elements 13 and intermediate areas which are inwardly depressed as at 14. It will be clear that [illegible] these respective areas interfit with each other and serve to maintain the boxes in alignment with each other. It will be noted in FIGURES 7 and 8, that on the outside the stop elements 15 are provided, and these are so arranged that when one box is nested in a like box, the bottoms of the elements 15 rest on the tops of the walls of the lower box to prevent the boxes from jamming into each other.

The opposed walls 11 are provided with the hinge elements 11*a*, which are in effect cylindrical, by virtue of alternating openings 11*b* at the top and 11*c* at the bottom (FIGURES 1, 7, 9 and 10). The lid elements are shown at 16 and 17, and these are provided with the hinge elements 16*a* and 17*a*, which are similar to the elements 11*a* but are offset with respect thereto so that they interfit therewith. The elements 16*a* and 17*a* are also in effect cylindrical by virtue of the alternating openings 16*b* and 17*b* at the top, and 16*c* and 17*c* at the bottom (FIGURES 1 and 7). A hinge pin passing through the elements 11*a* and 16*a* and 11*a* and 17*a* completes the hinge structure.

The lateral edges of the lid elements 16 and 17 are provided with flange elements 18, 19, which fit over the tops of the side walls 12 when the lid elements are closed and thus serve to support the lids in position.

From a consideration of FIGURES 1, 2 and 3, it will be clear that the lid elements 16 and 17 overlap each other. Since it is important to have a flat upper surface, for stacking purposes, the lid element 16 has the elements 20 and the lid element 17 has the interdigitating elements 21. In between the members 20 on the lid element 16, are the depressed areas 22 and similarly between the elements 21 are the depressed areas 23. The depressed areas 22 and 23 are only one-half as long as the interdigitating elements 20 and 21, and terminate at 22*a* and 23*a* espectively (FIGURES 2 and 3). The lids must be opened and closed concurrently for proper interdigitation. Thus, when the lid elements are closed as best seen

in FIGURES 1, 2 and 3, the elements 21 of the member 17 seat in the depressed portions 22 of the lid element 16, while the elements 20 of the lid element 16 seat in the depressed portions 23 of the element 17.

From a consideration of FIGURE 8, it will be seen that the lid elements 16 and 17 when opened, may swing all the way outward and downward as seen at the left of FIGURE 8, and when one box according to the invention is nested in another, the lids simply overlap each other as shown at the left of FIGURE 8 where the lid of a lower box is shown in broken lines.

It will be understood that finger holds may be provided in the walls 12 as indicated at 25 (FIGURE 5), and that various details may be varied considerably without departing from the spirit of the invention.

For these reasons no limitations not expressly set forth in the claims should be read in or implied.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows.

I claim:

1. A tote box comprising a bottom, and upwardly outwardly sloping side and end walls, hinge elemen s at the top on two opposed walls, a cover element hingedly secured to said hinge elements on each of said opposed walls, said cover elements overlapping in the region of the middle of said box, the opposed lateral edges of said cover elements having means to engage the tops of the adjacent opposed walls when in closed position, and the free edges of said cover elements having complementary raised and depressed areas, the depressed areas being about one-half the length of the raised areas, said areas interfitting with each other when said cover elements are closed, to present an upwardly flat surface, inset with respect to the upper edges of said side and end walls, whereby a like box may be stacked thereon and be confined against lateral movement.

2. A tote box according to claim 1, wherein said hinge elements permit said cover elements to swing down on the outside of said box.

3. A tote box according to claim 2, wherein abutment means are provided on the outside of said box near the tops of the walls thereof, said abutment means adapted to abut the top of a like box in nesting relation thereto, to prevent jamming.

4. A tote box according to claim 3, wherein in nested condition the open cover elements overlap the open cover elements of a like box in nesting relation thereto.

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GEORGE T. HALL, Primary Examiner

U.S. Cl. X.R.

220—31, 97; 229—44